

2. (Amended) The method of claim 1 further comprising maintaining said router configuration data using a tree structure having a plurality of tuples by said database subsystem.
3. (Amended) The method of claim 2 wherein said registering said first of said plurality of subsystems for notification further comprises:
 - (a) finding a requested tuple storing said configuration data for which notification is requested; and
 - (b) setting the notification flag for said requested tuple.
4. (Amended) The method of claim 3 wherein said registering said first of said plurality of subsystems for notification further comprises:
 - (a) determining whether said notification registration request included a request for notification of a name space; and
 - (b) setting a notification flag for children nodes of said requested tuple responsive to a determination that said notification registration request included said notification of a name space.
5. (Amended) The method of claim 1 further comprising:
 - (a) transmitting a notification unregistration request by said first of said plurality of subsystems to said database subsystem, said unregistration request indicating the configuration data for which said first subsystem requires unregistration of said notification;
 - (b) receiving said notification unregistration request by said database subsystem; and
 - (c) unregistering said first of said plurality of subsystems for notification by said database subsystem.
6. (Amended) The method of claim 1 further comprising:
 - (a) transmitting a router configuration transaction request by a second of said plurality of subsystems to said database to said plurality of subsystems;
 - (b) receiving said router configuration transaction request by said database subsystem;

- (c) carrying out said requested transaction by said database subsystem, said transaction changing said router configuration data maintained by said database subsystem;
- (d) determining each of said plurality of subsystems registered for notification of changes to said router configuration data; and
- (e) notifying said each of said plurality subsystems determined to be registered for notification of changes to said router configuration data.

7. The method of claim 6 wherein said router configuration transaction request is a create request.

8. The method of claim 6 wherein said router configuration transaction request is a delete request.

9. The method of claim 6 wherein said router configuration transaction request is a modify request.

10. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for transacting router notification using a database subsystem, said database subsystem storing router configuration data and being operatively coupled for communication with a plurality of router subsystems, said method comprising:

- (a) transmitting a notification registration request by a first of said plurality of subsystems to said database subsystems, said registration request indicating configuration data for which said first of said plurality of subsystems requires registration for notification of changes to said configuration data;
- (b) receiving said notification registration request by said database subsystem; and
- (c) registering said first of said plurality of subsystems for notification by said database.

11. (Amended) The program storage device of claim 10, and method further comprising:

maintaining said router configuration data using a tree structure having a plurality of tuples by said database subsystem.

12. (Amended) The program storage device of claim 11, wherein said registering said first of said plurality subsystems for notification further comprises:

- (a) finding a requested tuple for which notification is requested; and
- (b) setting the notification flag for said requested tuple.

13. (Amended) The program storage device of claim 12, wherein said registering said first subsystem for notification further comprises:

- (a) determining whether said notification registration request includes a request for notification of a name space; and
- (b) setting a notification flag for children nodes of said requested tuple responsive to a determination that said notification registration request includes said notification of a name space.

14. (Amended) The program storage device of claim 10, said method further comprising:

- (a) transmitting a notification unregistration request by said first of said plurality of subsystems to said database subsystem, said unregistration request indicating the configuration data for which said first of said plurality of subsystems requires unregistration;
- (b) receiving said notification unregistration request by said database subsystem; and
- (c) unregistering said first of said plurality of subsystems for notification by said database subsystem.

15. (Amended) The program storage device of claim 10, said method further comprising:

- (a) transmitting a router configuration transaction request by a second one of said plurality of subsystems of said database subsystem;
- (b) receiving said router configuration transaction request by said database subsystem;
- (c) performing said requested transaction by said database subsystem, said transaction changing said router configuration data maintained by said database subsystem;

- (d) determining each of said plurality of subsystems registered for notification of changes to said router configuration data; and
- (e) notifying each of said plurality of subsystems determined to be registered for notification of changes to said router configuration data.

16. (Amended) A router operating system comprising:

- (a) a database subsystem;
- (b) a plurality of client subsystems, each operatively coupled to said database subsystem; and
- (c) a database operatively coupled to said database subsystem to store router configuration information, said database subsystem further comprising a notification unit, said notification unit configured to provide notification of changes to router configuration information to each of said plurality of subsystems registered to receive notification of changes to said router configuration information.

17. The router operating system of claim 16 wherein said database is structured and configured as a tree database.

18. (Amended) In a router device having a processor and memory, a router operating system stores as instructions in said memory and executed by said processor, said router operating system comprising:

- (a) a database subsystem;
- (b) a plurality of client subsystems, each operatively coupled to said database subsystem; and
- (c) a database operatively coupled to said database subsystem and that stores router configuration information, said database subsystem further comprising a notification unit, said notification unit configured to provide notification of changes to said router configuration information to each of said plurality of client subsystems registered to receive notification.